Improvised Silencer

The following instructions can be used to construct a simple, cheap and effective silencer for a .22 LR rifle or pistol. This design can be adopted to function for other firearm calibers, however, a threaded barrel/silencer junction is recommended for cartridges more powerful than .22 LR.

Materials Required:

Drill Rod 7/32" (for .22 weapons)

At least 12" of 1/4" brake line or other strong metal tubing

At least 12" of 1 1/2" PVC tubing and two end caps

Fiberglass resin and hardener

Several feet of fiberglass mat

One roll of masking tape

1/8" and 3/16" drill bits

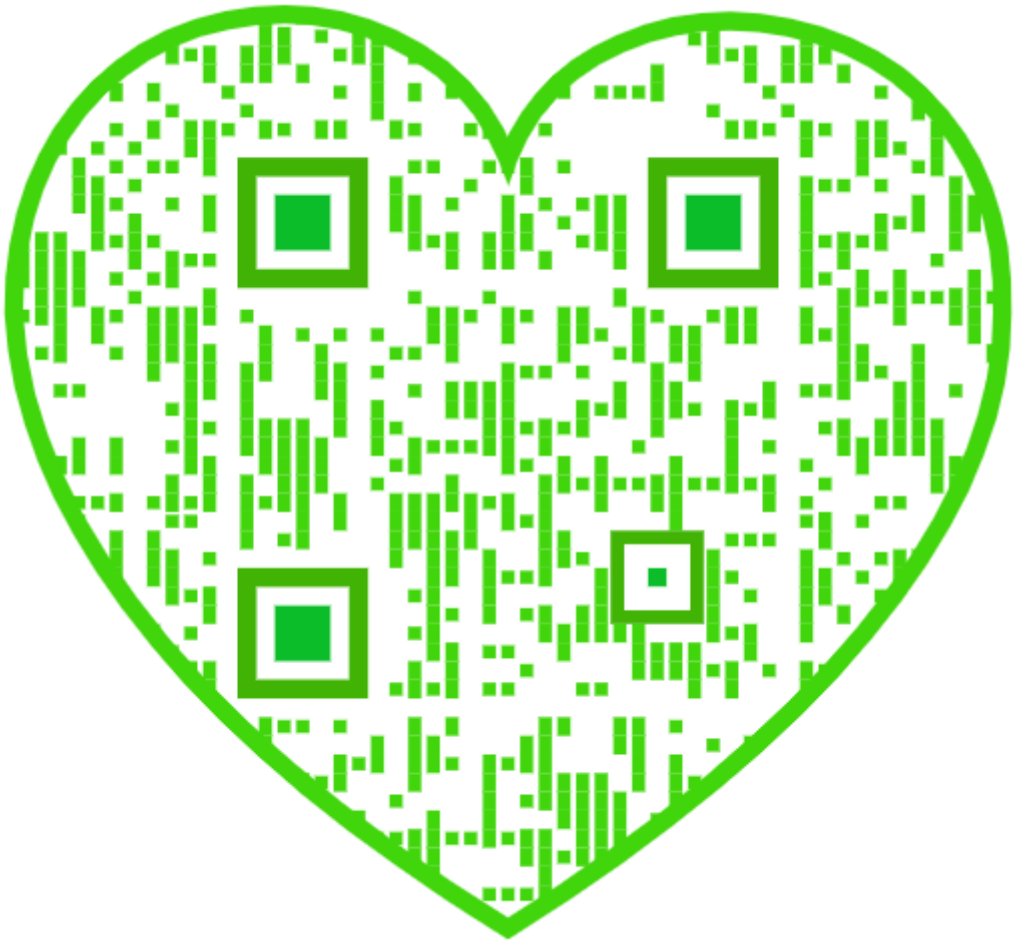
Rubber bands

Razor blades

White lithium grease

Eye dropper

6 wood screws



Steel wool

80x sand paper

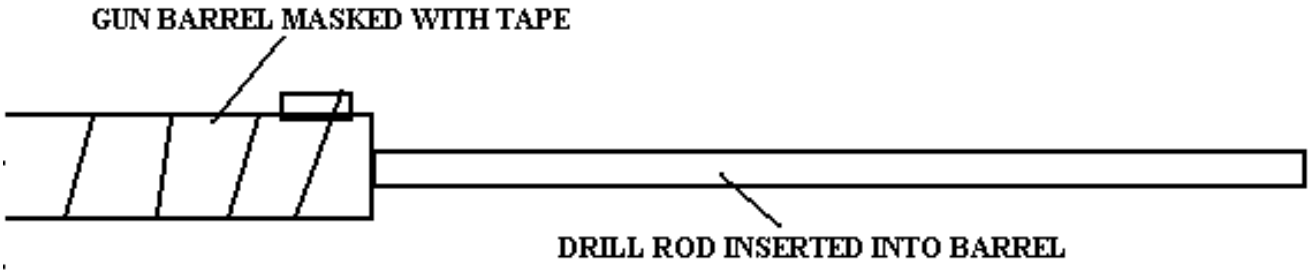
Construction:

Cut a 10" section from the brake line and drill a series of 1/8" holes along its length beginning 1 1/2" from the end.

Next, enlarge the holes using a 3/16" drill bit.

Using masking tape, mask off the end of the gun barrel and the first few inches. Be sure to keep the tape free of wrinkles to ensure a tight fit.

Place the drill rod down the barrel to keep the brake line aligned. Perfect alignment is extremely important. Sometimes the drill rod will be a little too large to fit into the barrel. In this case, chuck the drill rod into a drill and turn it down with a file or sandpaper, a little at a time, until it fits perfectly.



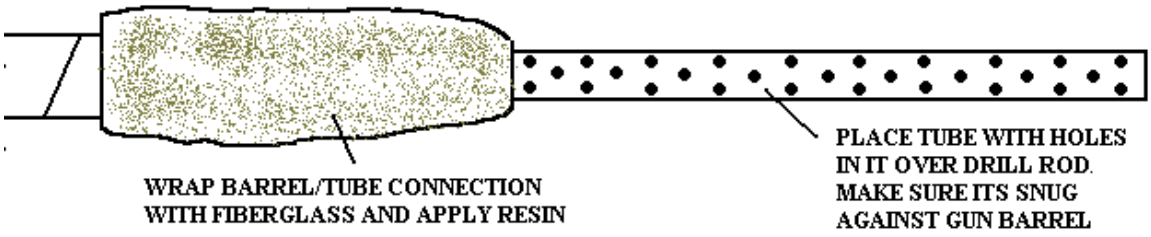
Wrap glass mat around the end of the gun barrel and brake line three times. Secure it in place with rubber bands every half inch. The glass mat should be wrapped about two

inches behind the sight and up to the first holes on the brake line.

Now mix the resin. A few spoonfuls will do. Mix it two or three times hotter than the package directions.

Brace the weapon in an upright position and dab the resin onto the glass mat with a brush. Keep applying resin until the mat is no longer white but becomes transparent from absorption of the resin.

As soon as the resin starts to harden and becomes tacky, detach the brake line and fiberglass from the barrel. Do this quickly before the resin hardens completely.


WRAP BARREL/TUBE CONNECTION
WITH FIBERGLASS AND APPLY RESIN
PLACE TUBE WITH HOLES
IN IT OVER DRILL ROD.
MAKE SURE ITS SNUG
AGAINST GUN BARREL

First use a razor blade to cut a notch behind the front sight so that the whole piece can be removed. Then push on the fiberglass to slide it off. Do not pull it off from the other end as the alignment will be thrown off.

After removal from the gun barrel, peel out the tape and allow it to finish hardening.

Use a sander, grinder or 80x sandpaper to smooth out the hardened rough surface.

Next, grind the sides down about halfway, but do not grind past the point where the front sight makes contact. Cut it down until the barrel fits snuggly and easily.

Stand the glassed brake line upright in a vise.

Mix a small amount of resin and use an eyedropper to fill in any interior holes or air bubbles until the solid fiberglass is level with the steel tube end. This will give the junction between the brake line and fiberglass coupling added strength. Acetone can be used to clean the eyedropper.

Cut the PVC tubing to the desired length. A longer silencer will be necessary for more powerful cartridges.

Drill a large hole in the center of one end cap, making it large enough to fit on the fiberglass end to the point where the front sight makes contact.

Drill a series of 3/16" holes in the bottom of the end cap.

Wrap masking tape around the end cap to cover the holes.

Stand the cap with the inside tube inserted into a vise. Get the cap level and straight with the brake line.

Cut two dozen or so 1/2" squares of fiberglass mat and fill the end cap with it up past the level of the row of holes.

Mix resin and pour it over the cut matting to a point about 1/4" above the holes and allow it to dry before removing the cap from the vise. Don't worry about any resin that leaks out around the base hole. Resin fills the small holes,

making the tube strong enough to withstand the muzzle blast.

When the inside is hardened, turn the assembly over and fiberglass around the backside of the end cap for added strength. Avoid getting resin in the opening where the barrel fits.

Place the finished cap and inner tube on one end of the PVC tubing that has already been cut to size. Center the brake line as you look in the open end of the PVC.

Now drill a 1/8" hole in three places around the tube about 1/4" from the lip of the cap.

Take the brake line out and enlarge the holes in the cap to 3/16"

Replace the brake line and tighten it down with three small wood screws.

Trim the brake line down until it extends about 1/2" beyond the PVC tube.

Sharpen one end of the drill rod to a point and use it as a center-punch. Stand the assembly up with the solid end cap down. Drop the drill rod down the brake line to get a true center mark.

Using a drill bit slightly larger than the outside diameter of the brake line, remove the end cap and drill the hole.

Cut a circle of 1/4" thick rubber which fits snuggly into the end cap. This rubber swipe will help prevent any hot gasses

from escaping even after many shot have been fired through it because rubber tends to stretch and rip rather that have material blasted out of it by a gunshot. The hole will reseal itself after firing keeping the system nice and tight. Replace this swipe whenever the bullet hole becomes too large to contain gasses. This step will make a big difference, particularly in small silencers.

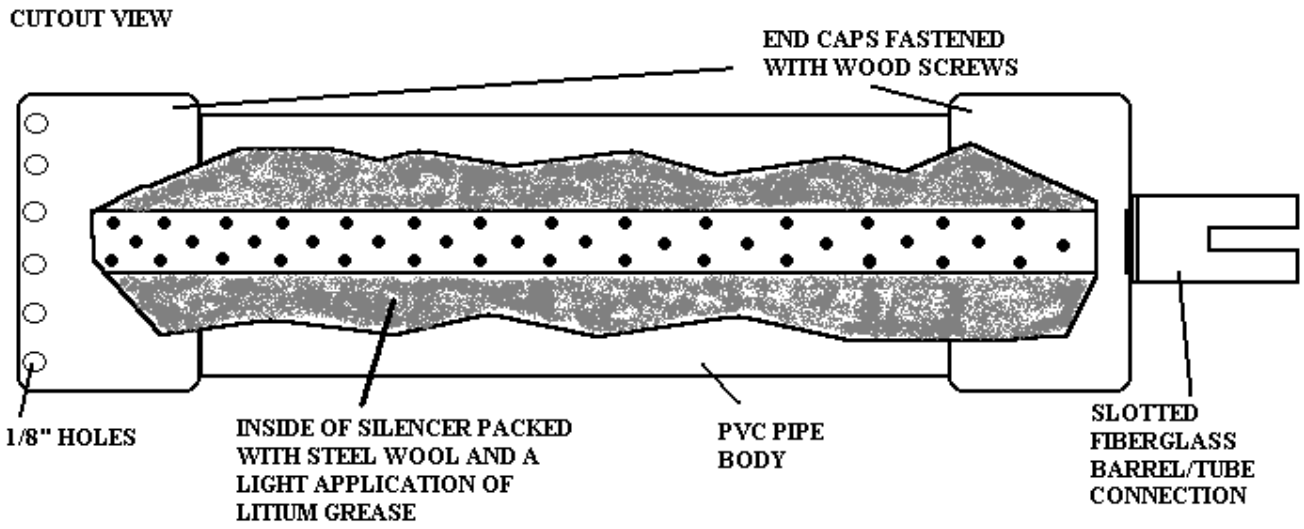
Replace the cap on the open end of the PVC tube and drill three 1/8" holes around the cap as before for wood screws.

The brake line should push into and slightly stretch the rubber swipe. The swipe should not stick out past the face of the cap. Grind off the end of the brake line to get a perfect fit.

Unfold sections of steel wool and roll into long strands.

Apply white lithium grease to each strand before feeding them into the silencer tube in a circular motion. The white grease helps to cool the hot gasses of the muzzle blast, thereby reducing the loudness of the gunshot. Pack the steel wool tight with a stick, continue this until the silencer tube is completely full.

Replace the end cap with the three screws.



Paint the finished silencer flat black and attach it to your weapon. Proper alignment can be ensured by using a hose clamp around the barrel extension behind the front sight. Test as described in the Silenced .22 LR Weapons.

This silencer can be counted on to function for over 300 rounds before it will be necessary to open it up and repack it with new steel wool and lithium grease.